An Essay On the Treatment and Cure of Pulmonary Consumption

On Principles Natural, Rational, and Successful ; With Suggestions for an Improved Plan of Treatment of the Disease Amongs the Lower Classes of Society

GEORGE BODINGTON

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ON THE TREATMENT AND CURE

OF

PULMONARY CONSUMPTION.

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ESSAY

ON THE

TREATMENT AND CURE

OF

PULMONARY CONSUMPTION,

ON PRINCIPLES NATURAL, RATIONAL, AND SUCCESSFUL:

WITH SUGGESTIONS FOR AN IMPROVED PLAN OF TREATMENT OF THE DISEASE AMONGST THE LOWER CLASSES OF SOCIETY; AND A RELATION OF SEVERAL SUCCESSIVE CASES RESTORED FROM THE LAST STAGE OF CONSUMPTION TO A GOOD STATE OF HEALTH.

BY GEORGE BODINGTON,

SURGEON.

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INTRODUCTION.

In venturing to put forth an Essay on the almost hopeless subject of the treatment and cure of Pulmonary Consumption, which has been so often written

ERRATUM.

Page 14, five lines from the bottom, for "affected," read *effected.*

increase, and the character and power of the medical art, as a curative and remedial means, continues obscured under a dark and cheerless cloud; for these reasons the Author trusts to obtain that forbearance and indulgence from his medical brethren, of which he is conscious he so much stands in need of; and that they will deem every effort attended with any success, in this important branch of medicine, of sufficient value to warrant publication, even if the only effect

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one thus consuming away, under the influence of this *wasting disease*, a nutritious diet of mild, fresh animal, and farinaceous food, aided by the stimulus of a proper quantity of wine, having regard to the general state and condition of the patient. If this is to be called the beef steak and porter system, then I am guilty of patronizing it; but, to my mind, it rather has the character of a preservative system—whilst the wasting plan is as much entitled to be called the destructive one. Be that as it may, not having the fear of "phlogiston" before my eyes—that "raw head and bloody bones" of medical science—I have, as will be found by a perusal of the following pages, employed a nutritious and moderately stimulating diet with much success; and, without that, I do not think the other means could have been so effectual, or the treatment complete.

I have been brief and concise in drawing up this small volume, preferring rather to form a strong outline than to enter into tedious detail; besides that, the filling up, in the treatment of individual cases, must always be left to the judgment of the medical attendant, who alone can direct the varieties of

practice called for by peculiarities arising from constitutional or other causes.

It will be observed, that the main ground of the treatment has been to preserve or restore to a normal condition, the functions of the nervous filaments, interwoven with the substance of the lungs, and exercising influence over the capillary system and other parts of the organization: it has been assumed that the first link in the chain of morbid actions arises there, as they first feel the irritation from the presence of the morbid matter deposited as a foreign body, and that all the other changes are consecutive to this wasting or destruction of the nervous energy of the filaments with which the tuberculous matter comes in contact. Upon this view the treatment of pulmonary consumption, in the way herein recommended, has been founded.

With the intention of further extending this mode of practice, and of reducing it to a system of regularity and order, as well as to be ready to meet the wishes and hopes of some who may read these few pages, and who might anxiously desire to reap the advantage

which this plan promises them, and which some have already obtained, to an extent beyond their own, or the expectation of their friends, I have taken for the purpose a house in every respect adapted, and near to my own residence, for the reception of patients of this class, who may be desirous, or who are recommended to remove from their homes for the benefit of change of air, etc. It is presumed that, as the situation is very superior in point of dryness, mildness, and purity of air, the advantages to be derived from systematic arrangements with regard to exercise, diet, and general treatment, with the watchfulness daily, nay, almost hourly, over the patient of a medical superintendent, great advantages may be obtained by the consumptive patient treated in this way, in comparison with those to be obtained by the removal of such an one to a boarding house or hotel merely for change of scene; and it is hoped that this plan may meet the approbation of the medical profession, and prove beneficial to many afflicted or threatened with the first symptoms of this direful disease in this neighbourhood or elsewhere.

This Essay has no pretension to a complete or perfect work on the subject of which it is composed; much of it is the substance of reminiscences of occurrences which took place several years since; but it has this to be said in its favour with regard to the cases related, that the individuals who were the subjects of them are alive and in good health at the present day; thus showing that the disease will admit not only of palliation, but of cure. Some of those individuals were despaired of by professional men of eminence, who were acquainted with the state of their health previous to their undergoing the treatment under which they recovered; and I know, and their friends know, that opinions adverse to any hope of their recovery were expressed. A larger and more perfect work on the subject may become necessary, as the result of more experience and the collection of more facts may happen to be made. The present Essay has been written in a somewhat hurried manner, when short intervals of time could be snatched from occupations varied and almost incessant. Hence, as a literary composition, its imperfections are very great; but as the aim has

been to give the pith and substance of the matter treated on, it is hoped this fault may be passed over.

SUTTON COLDFIELD, WARWICKSHIRE,
January, 1840.

ON THE

TREATMENT AND CURE OF PULMONARY CONSUMPTION.

An uniform and complete success having resulted in the treatment of several cases of tuberculous consumption, upon the principles and plan explained in the following pages, the author deems it his duty to publish them, with his opinions and principles of treatment. It would not accord with the brevity and conciseness of the plan of this treatise, to enter at length into the nature and causes of consumption, the diagnostic symptoms, physical signs, morbid anatomy, etc.; these are subjects which have been elaborately handled by several eminent authors, whilst little has yet been done, by way of improvement, in the treat-

ment of the disease: Consumptive patients are still lost as heretofore; they are considered hopeless and desperate cases by most practitioners, and the treatment commonly is conducted upon such an inefficient plan as scarcely to retard the fatal catastrophe. One mode of treatment prevailing, consists in shutting the patients up in a close room, to exclude as far as possible the access of the atmospheric air; and thus forcing them to breathe over and over again the same foul air contaminated with the diseased effluvia of their own persons. But what could rationally be expected to be the result from such practice, than that of the conversion of a slow or moderate consumption, into an intense or galloping one? This is, indeed, a treatment founded on the most erroneous principles, and is much more deserving of reprobation than is even the apathetic indifference and desperate hopelessness generally entertained with regard to this disease.

To aid the powers of the close room system, tartarized antimony is often given in excessive

doses, and generally with the effect of nearly destroying the patient: It materially assists the disease in destroying the powers of nutrition, the muscular power, and the functions of the skin, at the same time increasing the nervous excitement. Patients seldom survive long the use of this medicine, when administered freely, if the disease is much advanced, unless an antidote to the poison be timely given. I have never seen anything but mischief arise from the use of it; it is entirely inconsistent with the method and the principles upon which I have successfully treated the disease. It is, however, at the present time, a fashionable medicine, and I may add a most destructive one. I am quite sure that the employment of this (remedy?) hastens the fatal event.

Digitalis is another drug that has been vaunted as a remedy for consumption: It has the power of controlling the action of the heart, and diminishing the number of its beats; therefore, it has been argued, it must or ought to be serviceable

in this disease. It is perfectly well known, that it entirely fails even in retarding the progress of consumption; it has no power to cure that disease; and I shall be able to show clearly, that the diminution and regularity of action in the heart and arteries is to be attained by far different means than by the use of digitalis.

I believe, having mentioned the shutting up plan in close rooms, the use of antimony and digitalis, if I add the use of demulcents, of blisters, leeches, plasters, etc., I shall have described the helpless and meagre system of medical treatment of consumption in general use at the present day, the utter uselessness of which is so well known and so obvious, that the members of the medical profession in the towns, are in the habit of dismissing their patients to some distant sea-port or watering-place, where, falling under precisely the same mode of treatment, they there commonly die. The gravestones in the churchyards of many of these places of resort of the consumptive patients, bear testi-

mony to the truth of this remark. There is nothing gained by resorting to the coast; in truth, the interior of the island is the best; the air is just as pure and much milder, and more suitable for the lungs of consumptive people, if they will but breathe it. There is but one other proposition in the way of treatment to which I have to allude, I mean to the inhalation of gases of various kinds, by which means it is proposed to convert the cough of consumption into a catarrhal cough, which catarrh is to continue so long as the patient lives, or, discontinuing, the consumption would supervene. We have not heard what success has attended this method of treatment, but it may be fairly inferred that such an artificial mode of proceeding, so contrary to the dictates of common sense and sound principles, could not sustain itself for long, and must have perished nearly at its birth. The only gas fit for the lungs is the pure atmosphere freely administered, without fear; its privation is the most constant and frequent cause of the

progress of the disease. To live in and breathe freely the open air, without being deterred by the wind or weather, is one important and essential remedy in arresting its progress; — one about which there appears to have generally prevailed, a groundless alarm lest the consumptive patient should take cold: Thus one of the essential measures necessary for the cure of this fatal disease is neglected, from the fear of suffering or incurring another disease of trifling import. No two diseases can be more distinct from each other than consumption and catarrh; it is the latter only which might be caught by exposure to atmospheric causes; with the former they have nothing to do. Farmers, shepherds, ploughmen, etc., are rarely liable to consumption, living constantly in the open air; whilst the inhabitants of the towns, and persons living much in close rooms, or whose occupations confine them many hours within doors, are its victims: The habits of these latter ought, in the treatment of the disease, to be made to resemble as much as

possible those of the former class, as respects air and exercise, in order to effect a cure. How little does the plan of shutting up the patients in close rooms accord with this simple and obvious principle. As to the result of such a practice, it is known to all, one-fifth of the deaths annually in England are from consumption, whilst cures are scarcely ever heard of, and never expected: Despair seems to have taken full possession of the medical profession as regards this destructive disease, and none but the feeblest efforts are exerted to oppose its progress. The successful treatment of several cases successively, of severe, decided, and genuine, tubercular consumption, on principles, I believe, differing from the usual routine of practice, and from the doctrines and theories of the present day, which form the basis of medical practice, induces me to lay those cases before the public, and to explain my views and principles of treatment on which that success was founded.

When I began to practice medicine as an art, after having imbibed the theories of the schools, I very soon found the necessity of laying them aside as a guide, having discovered, as I believed, that the practice founded thereon was useful to a certain extent only, and as far as that went, fit to be employed; but that it was worse than useless when employed like a talismanic wand, to unlock and overcome every difficulty that might present itself. Thus I found that it was for the most part useful to preserve as much as possible, in very many diseases, the muscular power, contractility; but that antiphlogistic treatment, as it is called, had a direct tendency to destroy it. Again: To preserve the powers of nutrition I have found needful and beneficial always when they can be maintained; for disease makes a slower progress when opposed by a firm muscular tone and good nutritive powers. Antiphlogistic treatment directly impairs and destroys the powers of nutrition. Again: In order to oppose the progress of disease I have found it

of paramount importance to allay nervous excitement locally and generally; that is, to endeavour to bring to a healthy action the nervous influence from that morbid, irregular, or inefficient action which it exerts under the influence of disease. If the nervous system can be preserved entire, disease will be overcome, and healthy actions be maintained. If disordered nervous actions are restored to a healthy state, the functions of all the lower tissues dependent upon them will resume a healthy condition; for this purpose Nature has provided man with a bountiful supply of remedies, in the whole class of sedative and anodyne plants. In the proper use and application of these medicines, is to be found the means of restoring disordered nervous power to a healthy standard. I shall have to show, by and by, their important use in the treatment of consumption. Antiphlogistic treatment carried out exclusively in the usual way, and in accordance with the doctrines of the schools, has a tendency to excite and irritate the nervous

system, and to weaken its powers over those tissues which rank below it in the scale of animal life; consequently, it has a tendency to destroy every natural bulwark to the progress of morbid actions.

If consumption is considered in this light, we shall find the first step of its progress consists in nervous irritation, or altered action, or weakened power, in the substance of the lungs, from the presence of tuberculous matter deposited there as a foreign body. In consequence of this condition of the nervous power, the contractility of the lungs becomes impaired in its membranes, cellular substance, and blood vessels. So soon as the nervous power is entirely destroyed in those portions of the lungs where the tuberculous deposits exist, then the destruction of the remaining tissues follows immediately; they die, dissolve down into a half fluid half putrid condition, and are expectorated through the bronchial tubes, leaving cavities in the substance of the lungs which can be never healed but under the

most favourable combination of circumstances. Here is then, first, nervous power altered, weakened, or exhausted; then the destruction of the remaining tissues, constituting the main substance of the organ. To preserve the latter, the integrity and strength of the former must be maintained; and upon the means necessary for that purpose the whole question turns. I shall endeavour to explain those I have employed successfully in a plain, distinct, and intelligible way, to all classes of readers; for not only the medical profession, but every family is interested, and ought to be made acquainted with the means of guarding off this fearful malady, and of rescuing its victims, wherever it makes an attack.

Those persons who are for the most part the freest from the attacks of consumption, such as agricultural labourers, are commonly but little troubled with nervous disorder; they are rather remarkable for an apparent obtuseness of nervous susceptibility, and this is in strict keeping with fully developed muscular, nutrient, and san-

guiferous powers. This nervous quietude harmonises exactly with this condition of the latter powers; it is a plain inference that, to guard against the attacks of consumption, the condition of the patients should be assimilated as much as possible to that of the above-named class of individuals. The nutrient, muscular, and sanguiferous systems must be maintained in the highest perfection that is possible; the nervous system quieted, subdued, and rendered obtuse. The relation of the cases I have treated successfully will best show the means of effecting these objects. By a subdued and healthy condition of nervous power, and by a full and complete condition of health as regards the nutrient system, etc., the nervous system of the substance of the lungs, those nervous fibres immediately acted upon by the tuberculous deposits, will not yield to their influence. Tuberculous matter is often found deposited upon sound lungs, where it has been rendered harmless, by a vigorous state of nutrition, and the sanguiferous system; but let

individuals thus affected be exposed to the causes of innutrition, and there are but too many, by which the muscular and sanguiferous systems lose their tone and become weakened, and you have removed the barriers to the progress of consumption; the nerves of the lungs are no longer able to resist the morbid impression from the presence of the tuberculous matter, their energy becomes exhausted, ulcerations and excavation of the substance of the lungs follow, constituting consumption.

In order then to restore a consumptive patient, it will be necessary especially to attend to the following matters. We shall find first of all a rapid and weak pulse, ranging from 120 to 140 beats in a minute, clearly indicating a deficient supply of blood, and the heart and arteries irritable in proportion to this deficiency. This condition must be met at once, not by the means termed "antiphlogistic," but with frequent supplies, in moderate quantities, of nourishing diet and wine; a glass of good

Sherry or Madeira in the forenoon, with an egg, another glass of wine after dinner, fresh meat for dinner, some nourishing food for supper, such as sago, or boiled milk, according to the taste and digestive powers of the patient. This will be supplying means to rectify the morbid condition of the nutritive functions, and to allay the irritability of the heart and arteries. I have generally succeeded in the course of a few days, or perhaps a week, in reducing the pulse from 130 or 140 down to 90, by means of this diet, and by a systematic use of sedative medicines, and other means. The whole nervous system is unduly excited, or affected in some way we know not how to express or understand, from our limited knowledge of it, when under the influence of this disease, and neither can nutrition be affected, or the muscular system recover strength, or the vessels be filled with a due supply of the vital fluid, unless that nervous disorder be allayed and soothed, or rendered more in accordance with a healthy condition.

The plan to obtain this object is, to give alterative doses of sedatives, and also direct or full ones. The former consist of moderate doses given at intervals throughout the day, with the view of allaying the general nervous excitement. The direct or full dose is given at bed-time, to allay coughing and procure sleep. Aconite, henbane, or the salts of morphia may be used. I have preferred generally the hydrochlorate of morphine: A sufficient dose to procure a whole night's repose should be given every night, in addition to the alterative doses above mentioned; the latter may be administered, in an almond emulsion, in doses repeated three or four times a day. Should the medicine produce constitutional effects, paleness, faintness, sickness, giddiness, it must be laid aside for a period, and an antidote will be found in small quantities of weak brandy and water, or wine and water. The sedative medicines should be resumed so soon as these effects are removed.

I come now to the most important remedial

agent in the cure of consumption, that of the free use of a pure atmosphere; not the impure air of a close room, or even that of the house generally, but the air out of doors, early in the morning, either by riding or walking; the latter when the patients are able, but generally they are unable to continue sufficiently long in the open air on foot, therefore riding or carriage exercise should be employed for several hours daily, with intervals of walking as much as the strength will allow of, gradually increasing the length of the walk until it can be maintained easily several hours every day. The abode of the patient should be in an airy house in the country; if on an eminence the better: The neighbourhood chosen should be dry and high; the soil, generally of a light loam, a sandy or gravelly bottom; the atmosphere is in such situations comparatively free from fogs and dampness. The patient ought never to be deterred by the state of the weather from exercise in the open air; if wet and rainy, a covered

vehicle should be employed, with open windows. The cold is never too severe for the consumptive patient in this climate; the cooler the air which passes into the lungs, the greater will be the benefit the patient will derive. Sharp frosty days in the winter season are most favourable. The application of cold pure air to the interior surface of the lungs is the most powerful sedative that can be applied, and does more to promote the healing and closing of cavities and ulcers of the lungs than any other means that can be employed; for it is by the use of the means which have the power of restoring to a healthy condition the nervous system, interwoven with and forming a portion of the substance of the lungs, that healthy actions can be induced in the remaining tissues. This, then, is to be aimed at, — a healthy nervous system, which will embrace in its consequences, due sensibility, motive power, nutritive and reparative power, — conditions necessary to resist and overcome the morbid influence arising from the presence of

tuberculous matter. Many persons are alarmed and deterred from taking much exercise in the open air, from the circumstance of their coughing much on their first emerging from the warm room of a house; but this shows that the air of the room was too warm, not that the common atmosphere was too cold. To live in a temperature nearly equal to the latter at all times should be the aim of the patient, who should avoid warm close rooms as much as possible, and always keep away from the fire, taking care to keep the surface of the body warm by sufficient clothing. Thus the equal temperature so much considered, and said to be necessary, should be that of the external air, instead of that so commonly employed, the warmth of a close room.

In order effectually to overcome consumptive disease, all these several circumstances will be required to be adopted and followed up with the greatest attention, regularity, assiduity, and patience. Of those cases which I have treated

upon these principles, having had some of the patients under my own roof, by which I secured all the advantages of situation, etc., before spoken of, and some in my immediate neighbourhood, so that I could closely watch them, I have met with signal success, and scarcely an instance in which this mode of treatment has been fully carried out in all its particulars wherein the consumptive symptoms have not gradually yielded, and the patients restored to complete health. I shall now proceed to give an outline of the history of the treatment of several cases.

One occurred in the person of an awl blade grinder, living in the country, in the year 1833. He was of a consumptive family, a sister of his had died at about the age of twenty years, and others of his nearest relatives had died from the same disease. There could be no stronger exciting cause for the development of the disease than that which arose from his daily occupation; he was about

thirty years of age, of fair complexion, florid, shoulders high, chest narrow, and his general figure rather spare and slender. His finger nails were incurvated; he was troubled with a pain in his side; and a cough more or less without intermission. It was upon the accession of a sudden attack of consumption that I was called in to attend. A feeling of suffocation affected him, which was distressing, arising from the pressure of an abscess in the bronchial passages, attended with irritative fever; the breathing was relieved by the bursting of the abscess, and the free expectoration of pus and mucous. A cavity was formed in the upper portion of the substance of the lungs; the pulse beat 140 in a minute; he had profuse night perspirations; and his respiration was exceedingly quickened. He was much exhausted, and fully impressed with a belief that his life was about to terminate. He had no inclination for food of any kind; his muscles were relaxed and powerless, and his whole

frame collapsed. Under these circumstances, had the antiphlogistic treatment, or even any part of it, been adopted, I believe he would have sunk past recovery; and yet would not this be called acute inflammation of the substance of the lungs? and are not the remedies for this said to be, bleeding, blisters, calomel, antimony, digitalis, purgatives, etc.? But any of these, I firmly believe, would have hazarded his existence; the application of the antiphlogistic routine would have destroyed him. The treatment adopted was this: Seeing that nutrition was at a stand still, that the muscular power was collapsed, and the sanguiferous system running away, at the rate of 140 beats per minute; to counteract these dangerous symptoms, he took, first, a wine glass of port wine, and repeated it in a few hours; at bed time he took a sedative draught, and slept well; he continued to cough, and expectorated freely pus and mucous; he took at intervals small doses of hydrochlor. morph., about a tenth of a grain;

this, and the full dose he had taken on the previous night, allayed, in a great degree, the nervous excitement in the lungs, and the irritative fever subsided; but the cough, debility, and expectoration continued; there was a cavity of the lungs to be healed. I told him *that* could not be done without a strenuous effort on his part; and explained to him my views as to the beneficial effects to be obtained by early rising, and remaining out of doors a considerable time in the open air; that this would soothe, expand, and invigorate the lungs, so that the sores would soon heal, and that by no other means could he be cured; that if he remained within doors, shut up in the house, more abscesses would be likely to form, and the irritative fever again attack him. He saw the force of this advice, and determined to follow it, being a man of much firmness of character. All this occurred on the second day after the acute attack. On the next day following he related to me, nearly in

these words, the particulars of his morning walk: "I got up about four o'clock, and crawled out of the house as well as I could, and felt, and, I believe, looked, the most miserable, weak, and pitiable wretch in the world. I crept along, panting for breath, towards the common; I thought I must have died on the road; at last I reached Welchman's Hill, and when I began to walk round it, I felt my lungs open, my breathing free, and my strength increase fast. I was now sure it was doing me good; I went quite round the hill, and then home, and was so hungry that I ordered a beefsteak for breakfast, and ate heartily of it." The distance he walked would be about three miles. The spot called Welchman's Hill, is said to be equal in elevation to any table land in the island. The soil lying on a sandy or gravelly bottom, the air is very pure and mild. He continued for some time daily to pursue the same course, and became convalescent in a week, losing his cough entirely. I wished him to change his employ-

ment, but his circumstances forbade that. He resumed, after a short interval of rest, his trade of an awl blade grinder, and continues it to this time. He has had symptoms of a return of his disorder on several occasions since, and informs me that when that is the case, he betakes himself early in the morning to the common, and that always prevents any serious attack. The cure in this case was obtained by means applied to stimulate and invigorate the nutritive, sanguiferous, and muscular powers; wine and such nourishing diet as the stomach could bear, and by means applied to soothe and allay nervous excitement, locally and generally; first, by a full dose at night of the muriate of morphine, followed by small alterative doses given every five or six hours; secondly, by the application of the early morning air to the internal surface of the lungs, continued for several hours, accompanied with muscular exertion. The change in the character of the expectorated matter is very striking:

As soon as the full effects of the morning air are experienced, it becomes light, white, more transparent, and devoid of puriform matter; it has more of the nature of mucous, and is no longer heavy, yellow, and solid. So powerfully does this remedy affect the lungs as a sedative, allaying and subduing nervous disturbance, at the same time inducing a vigorous tone of the digestive apparatus, and of the nutrient functions generally, that it will, if boldly and thoroughly applied, directly and entirely change the character of the cough, and completely remove the wasting irritative fever.

The next opportunity I had of witnessing the advantages of the mode of treatment described, occurred in the case of a young lady, about sixteen years of age, whose parents, brothers, and sisters, were all at this time healthy generally; consumption was not known in the family previous to her case, but at the present time her brother suffers from the disease. For several years she had suffered occasionally from

pain in the side, cough, and debility. In 1835 she returned home from a boarding school, where she had been placed under medical treatment for these complaints; she was still ill, and her friends thought it advisable she should go to the sea coast. She went near to Liverpool; the sea air had a bad effect, the pain and cough increased, she was placed under medical care, and went through a long course of treatment. She continued to get worse in every respect, and her friends saw the necessity of her removal home; and she came to her native air in Warwickshire in October, 1835, after an absence of several months. Her friends were impressed with a notion that the iodine which she had been taking, if persevered with, would be ultimately successful. This very interesting patient came under my care. Her parents, relatives, and numerous friends, were watching her with the deepest solicitude; for she was, by all who knew her, most highly and justly esteemed. I found it necessary, at least for a short time, to

acquiesce in the treatment by iodine, although there was but little hope of any advantage from it. I met several medical men in consultation, and a treatment was pursued in the usual manner; the patient being confined to her room, and consumption gradually wearing her away. I had explained my views to her friends respecting air and exercise out of doors, but could not succeed in gaining their consent to the plan. The two months of November and December were thus lost to the patient, or rather, during that period every symptom of the disease had become aggravated; she was now extremely emaciated, suffered from profuse night perspiration, violent cough, and difficulty of breathing, the expectoration was abundant, consisting of mucous, mixed with opaque solid portions, frequently tinged with blood, most of which sank in water, some floated. There was a dull sound on percussion of the upper portion of the lungs, mucous rattle, with a gurgling noise, and a hoarseness, and weakness of voice;

the physical signs, in combination with the general symptoms, were clearly indicative of the existence of cavities in the upper portion of the lungs. In the month of January, 1836, the case was left entirely to my management; and having urged my views strongly to her friends, I gained their consent to their being adopted. A donkey was procured, on which the patient began to take exercise out of doors, notwithstanding the inclemency of the season, in the depth of winter. The first trial was unpromising; the cough appearing to be much increased in coming into the open air from the warm bed room. This arose from the undue closeness and heat of the bed room, and not the external air. There cannot be a more fatal error than that which arises from the supposition of there being something deleterious in the external atmosphere, because persons cough when first brought into it, out of unwholesome heated apartments: The latter should be especially avoided, and the apartments kept cool and airy, corresponding

in temperature nearly to the external atmosphere, whilst the former should be courted and indulged in to the utmost. The surface of the body may and should always be kept warm by sufficient clothing, the lungs cool by the constant access of cold pure air to them; thus undue heat is driven from the interior to the surface. In the present instance it was soon found that by continuing a long time out of doors the cough abated materially; every day some improvement was observed to take place, very gradual, but constant. A sedative draught was given every night, which, together with the exercise of the day, procured sleep and warded off the cough till morning. In the day time an emulsion mixture was taken at intervals, and very small doses of morphine, to subdue by degrees the irritation arising from the presence of tubercles in the lungs. The diet was nourishing, consisting of boiled egg, fresh meat, milk and bread, and two glasses of Sherry in water [redacted] daily. This treatment was continued

very strictly through the winter and spring months of the year 1836; by June the patient had entirely lost her cough, with all the other symptoms of the disease, regained her health and strength, and passed through the succeeding winter in very good health, accustoming herself to go out of doors, walking or riding almost daily. At this time, July 1839, she is in perfect health.

Nov. 14, 1836. A young lady about twenty-three years of age, residing at Birmingham, of a consumptive family: Two sisters and a brother died of the disease. She had been suffering several months from cough, pain in the side, emaciation, difficulty of breathing, and a pulse 140; she had all the usual symptoms of consumption in its last stage: In this condition she was placed under my roof, for the purpose of undergoing a treatment similar to that last detailed. As her brother had so recently died, and other members of her family, and her symptoms in all respects resembled theirs, her fate was thought

inevitable by her friends; she was therefore brought to me as a forlorn hope. She came on the 14th of November. On the 15th she was called up at eight o'clock, a.m., after a bad night of incessant coughing. After breakfasting with what appetite she had, she got into an open phaeton, and was driven four miles. She coughed at first, but in ten minutes it ceased; she alighted at a house and went into a warm sitting-room, where the cough returned immediately; after a short stay she returned home, and on the road the cough nearly ceased to trouble her. She took a little wine and water at eleven, a.m., and at two, p.m., dined on fresh mutton. In the afternoon, rode out on the donkey some time; retired to bed at eight o'clock, taking an anodyne draught of morphine. She slept well, and on the 16th rose at half-past seven. After breakfast she rode out on a donkey and walked alternately till one o'clock. After dinner, drove out in the phaeton four miles and back. Coughed rather more this afternoon;

pulse, 120; appetite moderate; an anodyne draught at bed time.

17th. — Cough continues; the strength improves; out of doors morning and afternoon, riding and walking; anodyne draught at bed time.

25th. — Has been gradually improving since the 17th; has been out of doors every day, sometimes walking, at others riding in the phaeton; sleeps well, the cough being troublesome only at rising in the morning; coughs but little when exercising out of doors; takes an almond mixture in the day time, anodyne draught every night.

29th. — The weather very stormy, the rain falling in torrents; notwithstanding which, at intervals when the rain ceased, the patient walked in the garden, morning and afternoon. Had a severe coughing fit last night; has scarcely coughed at all to-day. Eats moderately of plain animal and farinaceous food; drinks a small glass of Sherry wine in water daily after

dinner; the anodyne draught at bed time, and almond emulsion occasionally. Her health altogether is greatly improved.

Dec. 24.—The same treatment continued steadily up to this day, when she was considered well, and went home to Birmingham. She had taken exercise out of doors every day in some form or other; now her appetite is very good; breathing, free and easy; pulse, strong, firm, and not too quick; sleeps well, the cough seldom troubling her in the night, and quite absent in the day time; she is active and strong, and regaining flesh fast; eats meat for breakfast and supper with advantage, drinks Sherry and water after dinner.

She remained at home comparatively well until she caught the influenza, which prevailed as an epidemic in the months of January and February, 1837. The disease ran through the family, and none suffered so severely as my patient. I had not the management of her under this attack, until, whether from the

effects of the disease, or from the active and debilitating treatment employed, or both, she lost all the advantage she had obtained when under my care, the whole train of consumptive symptoms returned with greater severity than before. The debility was so great that she could not support herself, and, after a consultation with her mother, I arranged once more to receive her under my roof. She was conveyed in a car to my house, a few miles from Birmingham. The same plan of treatment was immediately followed which had before proved so beneficial, and, in the space of three weeks or a month, she again recovered, and, with the occasional use of the anodyne draughts, has remained tolerably well up to the present period.

May 16, 1839.—S. R., a married man, about thirty years of age, lives in service at — L.'s, Esq., Handsworth, near Birmingham. A few months since had an attack of hæmoptysis; since then has been subject to cough; the cough

is become permanent, incessant night and day; expectoration free; breathing short, especially on taking exercise; sharp pains through the chest, on the right side; great debility, and wasting of the body; excessive perspirations in the night; pulse 120; the tongue clean; eyes have a glassy expression, pupils dilated; complexion florid and fair; stature tall; chest rather narrow. His father died at six and twenty, of consumption. In addition to these symptoms, percussion afforded a dull sound on the upper part of the chest; auscultation discovered mucous rhoncus, with gurgling, on coughing. There was an excavation in the upper portion of the right lung, accompanied with all the usual symptoms.

TREATMENT.

The nervous excitement was combated by daily small doses of mur. morphinæ; by the frequent application of cool air to the surface of the lungs, by walking or riding out, begin-

ning at five or six o'clock in the morning. The wasting, innutrition, and muscular debility, and the accelerated pulse, clearly indicated the necessity of two glasses of wine daily, an egg at eleven o'clock p.m., fresh meat for dinner, tea in the afternoon, and gruel for supper. He took a dose of almond emulsion three times a day; slept on a flock bed; and used tepid sponging with vinegar and water every night, whilst he had profuse perspirations; bed clothes light.

May 18*th.* — Improved; cough diminished; slept well last night; pulse 80, softer, fuller; breathing more free; stronger; expression of countenance much improved; rode on horseback six miles; continue treatment as before.

21*st.* — Rode on horseback; rose at half-past five; walked out for an hour, to the farm house near, drank a little new milk; improving; sleeps well; appetite better; pulse 80; cough much diminished; breathing more free;

no night perspirations; omit the sponging; continue treatment as before.

24*th.* — He walked this morning four miles; pulse 86; cough nearly gone; appetite good.

27*th.* — Continues improving.

30*th.* — Walked again four miles without feeling fatigued; sleeps well; coughs at first rising in the morning; after discharging mucous, remains free from the cough till the afternoon, when he has another fit of it; strength increasing daily.

June 1. — Is well, with the exception of a slight cough, and expectoration of mucous, on rising in the morning; wishes to be allowed to return to work, as a groom, gardener, etc.

8*th.* — Walked four miles again feeling no fatigue; coughs occasionally in the morning; appetite good; breathes with freedom.

11*th.*—Has resumed his daily occupations; his strength being restored, wine no longer needful; appetite good; digestion easy; drinks toast and water.

18*th*. — Called at the surgery; quite recovered.

A young man about nineteen years of age, after having a year before suffered from hæmoptysis severely, and subsequently from slighter attacks of that disease from time to time, became the subject of a very severe hypocondriacal affection, which in the month of August, 1839, terminated in the development of tubercular consumption, characterised by frequent cough, and expectoration of mucus and pus, or matter of an ashy colour, sinking in water; by nocturnal profuse perspirations, shortness of breathing, emaciation and great debility; pulse ranging from 130 to 150 beats in a minute; respiratory murmur, almost imperceptible; percussion over the clavicles gave a dull sound; internal resonance of the voice and cough on the right side; the whole symptoms physical and natural clearly demonstrating, the existence of ulceration and excavation of a portion of the lungs, constituting the last stage of consumption.

TREATMENT.

Aug. 6th, 1839. — Takes a glass of new milk before breakfast; rises at six a.m., and walks in the garden; breakfast, tea and toast; rides out afterwards; lunch, milk and toast; dinner, fresh meat and bread; three glasses of Sherry wine daily, at eleven a.m., at two p.m., and at seven p.m.; afternoon, exercise in the open air, riding or walking; retires to bed at eight; takes an anodyne draught of mur. morphinæ; pulse 130.

8th. — Milk diet disagreeing with the stomach, takes beef tea, sago, fresh meat; Sherry wine and water after dinner and in the evening; eight p.m. much relieved by the omission of milk in the diet; pulse 120, fuller and softer; cough, expectoration, and night prespirations continue; repeat anodyne draught at bed time.

Sept. 3rd.—Patient continues under treatment, pursuing in all respects the plan daily as above, namely, three or four glasses of wine daily, with a good supply of fresh animal food, sedatives, demulcents, early rising, and going daily out

of doors, when the weather permits, and when at home, sitting for the most part with the window wide open, and without a fire, except occasionally in the evening; under this treatment the disease at present appears arrested in its progress; there is improvement as regards the cough, the quantity of expectoration, and the night perspirations, but the pulse continues to beat from 120 to 130 in a minute, and when at all excited even 140. This is the most difficult case I have hitherto encountered, and the most doubtful, as to its favourable termination, arising from the complication of morbid affections the patient has been the subject of, namely, of hæmoptysis, hypochondriasis, and a few years since of a fistula in ano, some effects of which he still suffers from; but I purpose to publish, if I have opportunity, a faithful account of the result of this, and of every case of this description which I may happen to have the opportunity of treating, upon the principles herein described, on a future occasion.

One case more which I shall describe from reminiscence, having no notes of it, will show the applicability of the treatment to acute consumption. About two years ago, I was desired to see Mrs. L., the wife of a tradesman, about thirty years of age, tall in person, and of fair and florid complexion. She was lying in bed, in extreme agony, from difficulty of breathing, arising from an internal tumour which she described she felt pressing upon the lower part of the throat. She was pale, and bathed in perspiration, large drops hanging about her forehead and face. The pulse was exceedingly quick and small, and the breathing terribly oppressed. Eight or ten leeches were quickly applied to the lower part of the neck, just above the sternum; and shortly after their application, her mouth became suddenly filled with matter of a purulent character, which she ejected; the breathing became free, cough and expectoration remaining. She took a sedative draught at night, and slept well. In the

morning the cough returned, and the expectoration was great, consisting of mucus and pus mingled. The irritative fever had greatly declined. A large bronchial abcess had been the cause of the symptoms, and its bursting afforded the relief which the patient felt. The question now was, as to the best means of healing the cavity, and preventing the acute attack degenerating into chronic consumption. The means employed were these: As she had been much exhausted, she was directed now to take occasionally a little wine and water, good beef tea, sago, etc.; sedatives were given her in small doses, and a full dose at bed time. She was advised immediately to quit the bed room, and go into the open air as much as possible, that she might obtain the benefit of the soothing and sedative properties of cool air applied to the inner surface of the lungs, being well clothed and guarded from wet and damp. She strictly followed this advice; and in one week's time, I met her riding several miles from home,

and heard her express very cheerfully, that she considered herself quite well. Her general appearance and expression was decidedly of that character which is indicative of a tuberculous habit; and the bronchial abscess was probably the result of tuberculous deposit, and the case altogether a specimen of the acute form of consumption.

The method of treatment in the foregoing cases is then, I think, entitled to be called natural and rational; that it is successful is obvious, each of the individuals thus treated, except the last but one, still under treatment, has remained since their cure in good and comfortable health, and they have obtained this advantage, that they now know themselves so well the best means of cure, and they employ those means effectually to ward off any fresh attack. Several years have elapsed since the restoration to health of the two young ladies, and they neither of them have since suffered seriously from any disease of the lungs. They go as much as they can into the open air,

walk much, live well, and avoid every source of bodily debility as much as possible, especially that which might arise from the imprudent use of that kind of medical treatment which goes by the term of "Antiphlogistic," well knowing that if they should sink below a certain degree of vigour and health from this cause, or any other, consumption would immediately make inroads upon their constitutions, and endanger their existence.

The generality of the medical profession have not the opportunity of thus treating their consumptive patients; if they are to succeed, they should have country houses in proper situations, well ventilated, and provided with all "appliances and means to boot," where their patients should be under their own eyes, and strictly watched and regulated in all respects as regards exercise, air, diet, medicine, etc.; or, there should be a certain class of practitioners who should exclusively pursue this practice as a distinct branch, to whom those in the large towns

should confide their consumptive patients, instead of sending them, as many now do, to take their chance, or probably to fall into the hands of mercenaries at some distant sea-port where they commonly die, far away from friends and home.

With respect to the consumptive poor patients, those who cannot afford to pay for a proper treatment of this sort, hospitals should be established in the vicinity of large towns, in fit situations, and properly appointed in all respects for their reception and treatment. In these there should be provision made for affording them carriage or horse exercise; and gardening, and farming occupations, for the convalescent. The common hospital in a large town is the most unfit place imaginable for consumptive patients, and the treatment generally employed there very inefficient, arising frem the inadequacy of the means at command.

With respect to the grinders at Sheffield, who, from the destructive effects of consumption

amongst them, arising from the inhalation of the metallic and stone dust, do not live beyond the age of thirty years, the necessity for an hospital for their exclusive use and treatment is most urgent on the score of common humanity and justice. These individuals actually throw away half the term of their natural life, in the pursuit of an occupation, by the results of which the rest of mankind may feed themselves delicately. As the immediate cause of the development of consumptive disease in these individuals is obvious, their removal from its influence, and early treatment under a combination of favourable circumstances, in a hospital properly chosen for them, and well conducted, would most likely be productive of a great extension of the present average term of their lives.

Connected with such an hospital, provision should be made for the employment of the convalescent and cured patients, who ought never to return to their former occupation, but should be employed after as agricultural labourers, gar-

deners, or in any other pursuit, rather than return to their former occupation.

One-fourth of the deaths which occur in Birmingham, Manchester, and other large towns, are from consumption; and if ever there was a necessity for an effort to arrest an evil of extraordinary magnitude, that necessity is urgent in regard to this most fatal of all diseases.

I have learned by experience that the surest way in which a successful treatment can be arrived at by the medical man, is, by the reception under his own roof of the consumptive patient; at the same time his house should be in the country, in a situation airy and dry; he should have every means about him for the proper exercise of the patient, in a carriage, on horseback, or a donkey, according to the ability and taste of the invalid; a swing boat is a good exercise, and one which I have employed with much advantage. The bed room should be cool and airy, and properly ventilated; everything relating to the patient's health should be strictly watched

and regulated by the practitioner; above all, in the medical treatment, there should be no bias in the mind arising out of the theory prevalent in the schools, and in medical practice, and termed "phlogiston," giving rise to a treatment called "antiphlogistic."

I have called the treatment herein adopted, natural; and not exactly in accordance with the received and adopted theory of inflammation, but in accordance with the natural phenomena presenting themselves to observation; thus, the whole structure being viewed as composed of so many parts, the several parts differing from each other in function and structure, the question presents itself,—how would each be affected by the presence of a particular morbid affection? as, for instance, a deposition of tuberculous matter;—taking, first, the higher order of organization, the nervous filaments spread out on the organ thus affected, we should infer that their power would be so affected by the presence of the foreign body, as to be wasted or lost; so that, by diminished

power, they could no longer control and preserve in healthy action the blood-vessels, cellular tissue, and other portions of the common organization; and as this action of the deposited matter would occur upon the extremities of the nerves, the capillary vessels would be affected by the loss of nervous power, and losing, in consequence, their contractility, or some portion of it, become dilated, swollen, and congested; and then would follow the usual phenomena, commonly called inflammation, terminating in suppuration or ulceration; that is, these vessels, losing the aid of nervous influence, are no longer able perfectly to perform the office of hydraulic tubes, carrying a fluid containing solid particles in solution—the blood; hence congestion, obstruction, and collection of the solid parts of the blood in these vessels takes place, terminating in abscess, ulceration, gangrene, or re-solution. The principles of treatment I have ever found most suitable for the removal of this diseased action, are founded neither exclusively on the doctrines of Brown, or

on the theory of inflammation; the truth, as far as my experience goes, lies between the two; as regards the condition of the nerves of an organ, and the supply of nervous energy, the reigning power, and governing principle, without a due supply of which, healthy actions in the lower grades of organization cannot be maintained; it depends mainly upon a healthy and vigorous state of the nutritive organs, by which the sensorium is supplied with the nourishing fluid, and maintained in vigour. As far as this system, then, is concerned, the Brunonian theory, and the treatment founded thereon, is the correct one; as regards the dilated, loaded, and distended capillaries, with the heat, and congestion, and deposition of the solid parts of the blood, the treatment founded on the theory of inflammation is the most serviceable; hence, local bleeding, by leeches or cupping, may be useful and necessary to relieve congestion of the blood-vessels in pulmonary consumption; but this is not inconsistent with the steady employment of means for the purpose of

maintaining the integrity and perfection of the sensorial functions, and of the whole nervous system, on which, in fact, will at last depend the chances of a permanent cure; and for this object it will be necessary to stimulate and preserve in due force the natural powers of the system, by the stimulus of wine and generous diet; and to prevent any undue exhaustion of nervous energy, by the exhibition of anodyne and sedative medicines upon a regular and systematic plan; and by the avoidance of all the common causes of nervous exhaustion and debility, especially those of close rooms and confined air, and of too exclusive a use of the medical treatment termed "antiphlogistic." As an illustration of my meaning, I may mention the experiment of Majendie, who divided the orbital branch of the fifth pair of nerves within the cranium of a living animal; the consequence of which was, that the eye became affected with all the symptoms and appearances of what is called intense inflammation, and blindness ensued. It is plain that the whole course of antiphlogistic

treatment, carried to its fullest extent, would fail in such a case to cure the eye; but a restoration of the nervous power, by re-union of the divided branch, if that could have been effected, would have cured it; the antiphlogistic means would have assisted, by unloading the distended vessels, and facilitating their restoration to the natural calibre. These would be the secondary means, but not the principal; and this is the view I take of the treatment of pulmonary consumption, to restore and preserve the perfection of the sensorial functions, by which the due quantity of nervous energy may be conveyed to the affected organ, by the nerves supplying it; secondarily to this, as much of the antiphlogistic treatment as may be deemed needful to relieve congestion and to remove local obstruction, without in any way compromising the normal state of the sensorial and nervous functions.

The powerful effect of the early morning air, in allaying excitement, and preventing the exhaustion of nervous energy, in the nervous

extremities or filaments spread out and interwoven with the substance of the lungs, with which it comes into immediate contact, is so great and so superior to all other means, that it should, in my opinion, under the eye and by the regulation of the medical attendant, form the foundation of the whole course of treatment; without it, he will not be enabled to administer the due proportion of stimulating and nutritious aliment; it is the proper preparation for the administration of medicinal sedatives; by it the muscular power is preserved from undue exhaustion, and the sanguiferous system from running away in waste; for this course of treatment I have invariably found to diminish the rapidity of the pulse. The profuse nocturnal perspirations are also soon subdued by this method of treatment, and the great debility they occasion avoided. The skin assumes a healthier action in proportion to the extent of exposure to the external atmosphere, particularly to the morning air.

If these views are in any wise correct, it is obvious that the present position of medical men generally is unequal to the task of undertaking the cure of pulmonary consumption; they live in the towns, for the most part, or large villages, and are compelled on this account to discharge the cases of consumption which they meet with, to the sea coast or some watering place, where probably but little interest is taken with a view to cure them. I think in the neighbourhood of every large town, sufficiently distant to be clear of its contamination from smoke, etc., and in well chosen spots, medical men should be established with all the means about them for the treatment of the disease in question, to whom, those who live in the towns should confide their patients of this kind, at the same time rendering them the benefit of their advice as far as needful, rather than that they should be dismissed to the care of nurses and lodging-house keepers, in distant situations; and again I repeat, I do

think that for the poorer classes, on account of the magnitude of the evil as regards them, hospitals especially for their use and treatment, ought to be established in fit situations. For my own part, from a decided conviction of the benefit to be derived, and the great advantage arising, from the reception of the consumptive patient under the roof of the medical attendant, provided the situation of his house is what it ought to be, and all the means needful for the treatment are at his command, I shall continue, if I have opportunity, as heretofore, to receive patients into my house, that they may have an opportunity of obtaining whatever benefit is to be derived from the plan of treatment herein described. From the foregoing observations it will be observed, that the medicinal treatment has been confined almost entirely to the exhibition of sedatives. Antimony and ipecacuanha I decidedly object to; they do not go to the root of the evil, are mere temporary remedies, if remedies at all; and they have a direct ten-

dency and do indeed always produce excessive debility. With regard to the use of prussic acid, and hydriod. potassæ, both of which have been extolled, there may be cases in which their exhibition might be serviceable, providing always that the system herein laid down, of air, exercise, diet, etc., formed the chief part of the treatment, but I have not hitherto found it necessary to resort to their use, therefore can say but little regarding their efficiency.

As far as my experience goes in the use of carbonate of soda, which as also been extolled, I decidedly object to it, believing, from closely watching its effects, it has a tendency to cause congestion and infiltration in the substance of the lungs, when given for any length of time. I infer thus much from having observed increased dyspnœa and cough, and a purple look of the skin, with a labouring small pulse, to be the result of its exhibition. I believe therefore in the correctness of Majendie's experiment, wherein by the injection of this salt

into the veins of living animals, the *post mortem* examinations invariably showed a congested state of the lungs, with infiltration into their substance. Coupling this with my own observations of its effects on the human frame, in cases of pulmonary disease, I have a great aversion to its exhibition, or to that of the nitrate of potass. I have found it advantageous to avoid the use of all neutral salts, with the exception of common salt, as a condiment. Since the foregoing was written, the case of the young man before mentioned as under treatment, has terminated fatally. Gurgling and pectoriloquy of the left lung, with increased dyspnœa, and every symptom indicative of the almost total destruction of that portion of the organ, with the occurence of diarrhœa on the 17th and 18th of September, terminated in death on the 20th. Thus the sixth case treated in the way herein recommended, has proved unsuccessful. It remains to be seen whether in future, five cases out of six can

be cured by this plan. Whatever occurs under my own observation, if I have opportunity, shall be faithfully recorded, whether in favour of or against this method, to recommend and extol which, at the expense of truth, is neither my wish or intention, but that there are ample grounds to justify an extended trial of the system, I think will be admitted generally, and with fair hopes of improved results comparatively.

The chances against recovery in the last case mentioned were great. The patient had from early youth grown up with unusual rapidity, being when about seventeen or eighteen years of age nearly six feet in height. He had suffered from a succession of serious and dangerous diseases; namely, fistula in ano, hœmoptysis for several years, and for a few months previous to the development of the pulmonary disease, intense hypochondriasis. Thus had the constitution been undermined and weakened previous to

the attack of disease on the lungs, so that this could hardly in fairness be admitted as a case to test the efficacy of the treatment applied.

In conclusion, I have to add, that the natural, rational, and, so far as to my knowledge it has been tried, the successful treatment of pulmonary consumption, appertains exclusively neither to the theory of phlogiston, or inflammation, or to that of the Brunonian system; but it is a mixture of both: As I believe both theories have truth in them, but are not exclusively true, and independent one of the other. Further physiological investigations into the nature of nervous power, and the influence it exercises over the sanguiferous and other tissues, by its presence or absence, or undue exhaustion or irritation, will probably develope the true nature of those changes of structure which occur under the influence of disease, which are designated by the term, "phlogosis" or inflammation, lan-

guage which not improbably is destined at some future period, to be expunged from medical science and literature; or at least, to be understood as conveying very different ideas of the nature of disease than are commonly implied in those terms at present, as well as to effect a great change in the mode and application of remedial agents generally. The experimental labours of Magendie in France, in relation to the operation of the nervous power in animal life, and the investigations of Kiernan and others in England, as to the condition of the capillary vessels in diseased parts, have both a direct tendency to weaken the faith hitherto so universally and implicitly placed in the old theory.

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